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 NEWS  3  Feb 06  Engineering Information Encompass files have new names
 NEWS  4  Feb 16  TOXLINE no longer being updated
 NEWS  5  Apr 23  Search Derwent WPINDEX by chemical structure
 NEWS  6  Apr 23  PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
 NEWS  7  May 07  DGENE Reload

 NEWS EXPRESS  April 18 CURRENT WINDOWS VERSION IS V6.0,
               CURRENT MACINTOSH VERSION IS V5.0C (ENG) AND V5.0JB (JP),
               AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2001
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=> s vector and recombinase

L1          410 VECTOR AND RECOMBINASE

=> s l1 and (select? or marker)
```

L2 156 L1 AND (SELECT? OR MARKER)

=> s l2 and (excis? or remov?)

L3 64 L2 AND (EXCIS? OR REMOV?)

=> dup rem l3

PROCESSING COMPLETED FOR L3
L4 44 DUP REM L3 (20 DUPLICATES REMOVED)

=> s l4 and transform

L5 0 L4 AND TRANSFORM

=> del l5 y

=> d 1-10 ti

L4 ANSWER 1 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Targeted **removal** of attP-flanked **selectable marker** gene from a transgenic plant by inducing intrachromosomal homologous recombination

L4 ANSWER 2 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI A method of assembling large, complex vectors for plant transformation using the cre/loxP site-specific recombination system

L4 ANSWER 3 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Transgenic animals expressing modulating human Tau protein gene as models for neurodegenerative disease such as Alzheimers

L4 ANSWER 4 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 1
TI Chromosomal targeting in bacteria using flp **recombinase**

L4 ANSWER 5 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Gene therapy of cancers using suicide genes preferentially deleted from non-cancerous cells

L4 ANSWER 6 OF 44 AGRICOLA DUPLICATE 2
TI A transformation **vector** for the production of **marker** -free transgenic plants containing a single copy transgene at high frequency.

L4 ANSWER 7 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 3
TI Intrachromosomal recombination between attP regions as a tool to **remove selectable marker** genes from tobacco transgenes

L4 ANSWER 8 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 4
TI Exploring redundancy in the yeast genome: an improved strategy for use of the cre-loxP system

L4 ANSWER 9 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Controlling gene expression in yeast by inducible site-specific recombination

L4 ANSWER 10 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 5

TI Integration-proficient plasmids for Pseudomonas aeruginosa: site-specific integration and use for engineering of reporter and expression strains

=> d ab

L4 ANSWER 1 OF 44 CAPLUS COPYRIGHT 2001 ACS
AB The invention relates to a method of **removing** a **selectable marker** gene of genes from a plant and esp. from a transgenic plant. The method comprises flanking the part of the integrated transgene on each side with an attachment P region (attP) of bacteriophage .lambda. and inducing intrachromosomal homologous recombination between the flanking attP regions so that the part of the transgene sandwiched between the attP regions is **removed**. This system was used to delete a 5.9 kb region from a recombinant **vector** contg. a NPTII **selectable marker** gene flanked by two attP regions that had been inserted into two different genomic regions of tobacco plants. As the attP system does not require the expression of helper proteins to induce deletion events, or a genetic segregation step to **remove recombinase** genes, it should provide a useful tool to **remove** undesirable transgene regions, esp. in vegetatively propagated species.

=> d 2 ab

L4 ANSWER 2 OF 44 CAPLUS COPYRIGHT 2001 ACS
AB The present invention relates to a novel unconventional method for cloning large and multiple segments of DNA into a **vector** that makes use of the cre/loxP site-specific recombination system. More specifically the present invention provides nucleic acid sequences for **selectively** regulating site-specific recombination in favor of insertion of multiple segments of DNA in a plant transformation **vector**. In particular, the invention relates to the use of sequences in the recombination site that can be used in gene-stacking or other multigenic cloning strategies. The method uses an array of variants of the canonical loxP site that can recombine to generate loxP sites that are no longer functional and so block cre-mediated **excision** after recombination. In this manner, the sequences needed for the **vector** can be sequentially incorporated into the construct ("stacking"). The method can be used in combination with other site-specific recombination systems such as FLP/FRT. The compatibility of an array of loxP variants in site-specific recombination was tested. Some combinations of variants recombined at near-normal rates but others did not recombine at all and the sequences were organized into compatibility classes. Use of combinations of loxP sites to integrate one plasmid into another is demonstrated. Use of sets of loxP variants to stack sequences is also demonstrated by constructing a plasmid carrying genes conferring resistance to potato leafroll virus, potato virus Y, glyphosate and Colorado potato beetle. Trangenic potato plants expressing all four genes were obtained from single transformation events.

=> d 5 ab

L4 ANSWER 5 OF 44 CAPLUS COPYRIGHT 2001 ACS
AB A method of cancer therapy by **selective** killing of transformed cells is described. The method makes use of the loss of certain transcription factors from tumor cells. The method uses a **vector** carrying a gene for a sequence-specific **recombinase** under control of transcription factor that is absent from tumor cells and a suicide gene flanked by target sequences for the **recombinase**. Introduction of the **vector** into normal cells results in expression of the **recombinase** gene and **excision** of the suicide gene. In tumor cells lacking the transcription factor, the suicide gene is not eliminated. Tumor cells exposed to a prodrug activated by the suicide gene product are killed.

=> d 5 so

L4 ANSWER 5 OF 44 CAPLUS COPYRIGHT 2001 ACS
SO Ger. Offen., 16 pp.
CODEN: GWXXBX

=> d 6 ab

L4 ANSWER 6 OF 44 AGRICOLA DUPLICATE 2
AB We represent here the GST-MAT **vector** system. The R **recombinase** gene of the site-specific recombination system R/RS from Zygosaccharomyces rouxii was fused to the chemical inducible promoter of the glutathione-S-transferase (GST-II-27) gene from Zea mays. Upon **excision**, the isopentenyltransferase (ipt) gene that is used as a **selectable marker** gene is **removed**. When the cauliflower mosaic virus 35S promoter (CaMV 35S) was used to express R **recombinase**, 67% of the **marker**-free transgenic plants had more than three transgene copies. Because the CaMV 35S promoter transiently and efficiently **excised** the ipt gene before and adventitious bud formation, the frequency of emergency of the ipt-shooty explants with a single T-DNA copy might be reduced. In this study we know that the GST-MAT **vector** efficiently produced transgenic ipt-shooty explants from 37 (88%) out of 42 differentiated adventitious buds and **marker**-free transgenic plants containing the GUS gene from five (14%) out of 37 ipt-shooty lines. Furthermore, the GST-MAT **vector** also induced two **marker**-free transgenic plants without the production of ipt-shooty intermediates. Southern blot analysis showed that six (86%) out of seven **marker**-free transgenic plants had a single GUS gene. This result suggests that the GST-MAT **vector** is useful to generate high frequency, **marker**-free transgenic plants containing a single transgene.

=> d 6 so

L4 ANSWER 6 OF 44 AGRICOLA DUPLICATE 2
SO The Plant journal : for cell and molecular biology, June 2000. Vol. 22, No. 5. p. 461-469

Publisher: Oxford : Blackwell Sciences Ltd.
ISSN: 0960-7412

=> d 9 ab

L4 ANSWER 9 OF 44 CAPLUS COPYRIGHT 2001 ACS
AB An intron module was developed for Saccharomyces cerevisiae that imparts conditional gene regulation. The kanMX **marker**, flanked by loxP sites for the Cre **recombinase**, was embedded within the ACT1 intron and the resulting module was targeted to specific genes by PCR-mediated gene disruption. Initially, recipient genes were inactivated because the loxP-kanMX-loxP cassette prevented formation of mature transcripts. However, expression was restored by Cre-mediated site-specific recombination, which **excised** the loxP-kanMX-loxP cassette to generate a functional intron that contained a single loxP site. Cre **recombinase** activity was controlled at the transcriptional level by a GAL1::CRE expression **vector** or at the enzymic level by fusing the protein to the hormone-dependent regulatory domain of the estrogen receptor. Neg. **selection** against leaky pre-**excision** events was achieved by growing cells in modified minimal media that contained geneticin (G418). Advantages of this gene regulation technique, which we term the conditional knock-out approach, are that (i) modified genes are completely inactivated prior to induction, (ii) modified genes are induced rapidly to expression levels that compare to their unmodified counterparts, and (iii) it is easy to use and generally applicable.

=> d 9 so

L4 ANSWER 9 OF 44 CAPLUS COPYRIGHT 2001 ACS
SO Nucleic Acids Res. (2000), 28(24), e108/1-e108/6
CODEN: NARHAD; ISSN: 0305-1048

=> d 11-20 ti

L4 ANSWER 11 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 6
TI Heterogeneous populations of ES cells in the generation of a floxed Presenilin-1 allele

L4 ANSWER 12 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Gene therapy vectors utilizing recombination and their use in antitumor therapy

L4 ANSWER 13 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Recombinational cloning using nucleic acids having recombination sites

L4 ANSWER 14 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 7
TI Chromosomal integration of heterologous DNA in Escherichia coli with precise **removal** of markers and replicons used during construction

L4 ANSWER 15 OF 44 BIOSIS COPYRIGHT 2001 BIOSIS
TI Application of the Cre **recombinase**/loxP system further enhances

antitumor effects in cell type-specific gene therapy against carcinoembryonic antigen-producing cancer.

L4 ANSWER 16 OF 44 BIOSIS COPYRIGHT 2001 BIOSIS
TI Somatic and germinal inheritance of an FLP-mediated deletion in transgenic tobacco.

L4 ANSWER 17 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 8
TI Genome engineering of Toxoplasma gondii using the site-specific **recombinase** Cre

L4 ANSWER 18 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 9
TI pBECKS2000: a novel plasmid series for the facile creation of complex binary vectors, which incorporates "clean-gene" facilities

L4 ANSWER 19 OF 44 BIOSIS COPYRIGHT 2001 BIOSIS
TI **Selectable marker**-free transgenic plants without sexual crossing: Transient expression of cre **recombinase** and use of a conditional lethal dominant gene.

L4 ANSWER 20 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Isolation of **Selected** Chromatin Fragments from Yeast by Site-Specific Recombination in Vivo

=> d 14 ab

L4 ANSWER 14 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 7
AB A set of vectors which facilitates the sequential integration of new functions into the Escherichia coli chromosome by homologous recombination has been developed. These vectors are based on plasmids described by Posfai et al. (J. Bacteriol. 179:4426-4428, 1997) which contain conditional replicons (pSC101 or R6K), a choice of three **selectable** markers (ampicillin, chloramphenicol, or kanamycin), and a single FRT site. The modified vectors contain two FRT sites which bracket a modified multiple cloning region for DNA insertion. After integration, a helper plasmid expressing the flippase (FLP) **recombinase** allows precise in vivo **excision** of the replicon and the **marker** used for **selection**. Sites are also available for temporary insertion of addnl. functions which can be subsequently deleted with the replicon. Only the DNA inserted into the multiple cloning sites (passenger genes and homologous fragment for targeting) and a single FRT site (68 bp) remain in the chromosome after **excision**. The utility of these vectors was demonstrated by integrating Zymomonas mobilis genes encoding the ethanol pathway behind the native chromosomal adhE gene in strains of E. coli K-12 and E. coli B.
With these vectors, a single antibiotic **selection** system can be used repeatedly for the successive improvement of E. coli strains with precise deletion of extraneous genes used during construction.

=> d 14 so

L4 ANSWER 14 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 7
SO J. Bacteriol. (1999), 181(22), 7143-7148
CODEN: JOBAAY; ISSN: 0021-9193

=> d 16 ab

L4 ANSWER 16 OF 44 BIOSIS COPYRIGHT 2001 BIOSIS
AB Site-specific recombinases are increasingly being used in transgenic plants to engineer genetic rearrangements such as the **removal** of unwanted **selectable** markers and the activation or delation of expressed genes. Here a convenient **vector** system for the activation of transgene expression by FLP-mediated deletion of a transcription blocking sequence is presented. To investigate somatic and germinal transmission of deletion/activation events in transgenic tobacco (Nicotiana tabacum L. var. Xanthi) a derivative of this **vector** was constructed in which a spectinomycin resistance (SPEC) gene was introduced into plants in a silent state, separated from a CaMV 35S promoter by a GUS gene blocking sequence flanked by FLP target sites (FRTs). SPEC can therefore be activated by FLP-mediated **excision** of GUS. After crossing to appropriate FLP-expressing plants, heat-shock-induced FLP expression efficiently generated sectors of spectinomycin-resistant tobacco tissue. Constitutive expression of FLPresulted in activation of SPEC and loss of GUS activity in most somatic tissues of all plants carrying 35S-FLP and the target construct. One of the eight plants tested tramsmitted the recombined state to all progeny, indicative of **excision** activity in germinal tissue.

=> d 16 so

L4 ANSWER 16 OF 44 BIOSIS COPYRIGHT 2001 BIOSIS
SO Journal of Experimental Botany, (Sept., 1999) Vol. 50, No. 338, pp. 1447-1456.
ISSN: 0022-0957.

=> d 18 ab

L4 ANSWER 18 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 9
AB A new plasmid series has been created for Agrobacterium-mediated plant transformation. The pBECKS2000 series of binary vectors exploits the Cre/loxP site-specific **recombinase** system to facilitate the construction of complex T-DNA vectors. The new plasmids enable the rapid generation of T-DNA vectors in which multiple genes are linked, without relying on the availability of purpose-built cassette systems or demanding complex, and therefore inefficient, ligation reactions. The vectors incorporate facilities for the **removal** of transformation markers from transgenic plants, while still permitting simple in vitro manipulations of the T-DNA vectors. A "shuttle" or intermediate plasmid approach has been employed. This permits independent ligation strategies to be used for two gene sets. The intermediate plasmid sequence is incorporated into the binary **vector** through a plasmid co-integration reaction which is mediated by the Cre/loxP site-specific **recombinase** system. This reaction is carried out within Agrobacterium cells. Recombinant clones, carrying the co-integrative binary plasmid form, are **selected** directly using the antibiotic resistance **marker** carried on the intermediate plasmid. This strategy facilitates prodn. of co-integrative T-DNA binary **vector**

forms which are appropriate for either (1) transfer to and integration within the plant genome of target and **marker** genes as a single T-DNA unit; (2) transfer and integration of target and **marker** genes as a single T-DNA unit but with a Cre/loxP facility for site-specific **excision** of **marker** genes from the plant genome; or (3) co-transfer of target and **marker** genes as two independent T-DNAs within a single-strain Agrobacterium system, providing the potential for segregational loss of **marker** genes.

=> s l4 and transcription factor

L5 1 L4 AND TRANSCRIPTION FACTOR

=> d ti

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
TI Gene therapy of cancers using suicide genes preferentially deleted from non-cancerous cells

=> d so

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
SO Ger. Offen., 16 pp.
CODEN: GWXXBX

=> d pi

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19834430	A1	20000203	DE 1998-19834430	19980730
	DE 19834430	C2	20000531		
	WO 2000006758	A1	20000210	WO 1999-EP3607	19990525
	W: AU, CA, CN, JP, KR, RU, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9943682	A1	20000221	AU 1999-43682	19990525
	EP 1019518	A1	20000719	EP 1999-926413	19990525
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

=> d 18 so

1 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
ENTER ANSWER NUMBER OR RANGE (1):1

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
SO Ger. Offen., 16 pp.
CODEN: GWXXBX

=> d l4 18 so

L4 ANSWER 18 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 9
SO Mol. Gen. Genet. (1999), 261(2), 226-235
CODEN: MGGEAE; ISSN: 0026-8925

=> d 21-30 ti

1 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
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ANSWER NUMBERS NOT CORRECTLY SPECIFIED
Enter an answer number, Example: 10
several answer numbers, Example: 3,7,10
a range of answer numbers, Example: 5-10
or a combination of these. Example: 3,7,9-10,15
ENTER ANSWER NUMBER OR RANGE (1):1

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
TI Gene therapy of cancers using suicide genes preferentially deleted from non-cancerous cells

=> d l4 21-30 ti

L4 ANSWER 21 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Transcriptional regulation in plants using meiosis-specific DMC1 gene promoters

L4 ANSWER 22 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Retrovirus-based expression vectors for use in the study of gene expression in mammalian cells

L4 ANSWER 23 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Preparation of adeno-associated virus-derived **vector** for introducing genes into animal cells using cre/loxP mechanism and its use in gene therapy

L4 ANSWER 24 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Conditional immortalization method for human tumor cells in producing a vaccine

L4 ANSWER 25 OF 44 BIOSIS COPYRIGHT 2001 BIOSIS
TI Retargeting of retroviral integration sites for the predictable expression
of transgenes and the analysis of cis-acting sequences.

L4 ANSWER 26 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Inducible expression based on regulated recombination: a single **vector** strategy for stable expression in cultured cells

L4 ANSWER 27 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 10
TI Site-specific integration of Agrobacterium T-DNA in Arabidopsis thaliana

mediated by Cre **recombinase**

L4 ANSWER 28 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 11
TI A new system for stringent, high-titer vesicular stomatitis virus G protein-pseudotyped retrovirus **vector** induction by introduction of Cre **recombinase** into stable prepackaging cell lines

L4 ANSWER 29 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 12
TI Dissecting the role of N-myc in development using a single targeting **vector** to generate a series of alleles

L4 ANSWER 30 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Regulated **excision** of a target gene from the transformation **vector** in the recipient cell using a site-specific **recombinase**

=> d 26 ab

1 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
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L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
AB A method of cancer therapy by **selective** killing of transformed cells is described. The method makes use of the loss of certain transcription factors from tumor cells. The method uses a **vector** carrying a gene for a sequence-specific **recombinase** under control of **transcription factor** that is absent from tumor cells and a suicide gene flanked by target sequences for the **recombinase**. Introduction of the **vector** into normal cells results in expression of the **recombinase** gene and **excision** of the suicide gene. In tumor cells lacking the **transcription factor**, the suicide gene is not eliminated. Tumor cells exposed to a prodrug activated by the suicide gene product are killed.

=> d 14 26 ab

L4 ANSWER 26 OF 44 CAPLUS COPYRIGHT 2001 ACS
AB When fused to the ligand binding domain (LBD) of steroid hormone nuclear receptors, site-specific recombinases (SSRs) acquire a ligand-dependent activity. Here, the authors describe the use of SSR-LBD fusion proteins in an inducible expression system, introduced into cells in a single step.
A single transgene contains a constitutively active, bi-directional enhancer/promoter, which directs expression, on one side, of an SSR-LBD fusion protein gene and, on the other, a **selectable marker**/inducible gene cassette. The **selectable marker**, the puromycin acetyltransferase (pac) gene, is used for stable genomic integration of the transgene and is flanked by recombination target sites. The inducible gene is not expressed because the pac gene lies between it and the promoter. Activation of the SSR-LBD by a ligand induces recombination and the pac gene is **excised**. The inducible gene is thus positioned next to the promoter and so is expressed. This describes a ligand-inducible expression strategy that relies on regulated recombination rather than regulated transcription. By

inducible expression of diphtheria toxin, evidence that this system permits inducible expression of very toxic proteins is presented. The combination of the complete regulatory circuit and inducible gene in one transgene relates expression of the **selectable marker** gene to expression from the bi-directional enhancer/promoter. The authors exploit this relationship to show that graded increases in **selection** pressure can be used to **select** for clones with different induction properties.

=> d l4 30 ab

L4 ANSWER 30 OF 44 CAPLUS COPYRIGHT 2001 ACS
AB A method of site-specific **excision** of a target gene from a transformation **vector** using a site-specific **recombinase** is described. This allows the transformation of the target organism with the **removal** of a **selectable marker** carried by the **vector**. **Excision** can be regulated or constitutive depending upon the promoter regulating the **recombinase** gene. As a result the same **selectable marker** can be used can be used in a no. of sequential transformations. The method can be generally used to regulate transgene expression in genetically-manipulated organisms, for example to promote differentiation, de-differentiation, or any unidirectional developmental shift of a target cell which requires the time-specific expression of a particular gene. The method is particularly suited to the promotion of specific organogeneses in plants using organogenesis-promoting transgenes, wherein the organs which subsequently develop in said plants are genetically transformed with a desired gene but lack organogenesis-promoting transgenes. The use flp/frt and cre/loxP recombination systems in tobacco (Nicotiana plumbaginifolia) is demonstrated.

=> d l4 30 so

L4 ANSWER 30 OF 44 CAPLUS COPYRIGHT 2001 ACS
SO PCT Int. Appl., 85 pp.
CODEN: PIXXD2

=> d l4 30 pi

L4 ANSWER 30 OF 44 CAPLUS COPYRIGHT 2001 ACS

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9737012	A1	19971009	WO 1997-AU197	19970327
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2250111	AA	19971009	CA 1997-2250111	19970327
AU 9721437	A1	19971022	AU 1997-21437	19970327

AU 717267 B2 20000323
EP 922097 A1 19990616 EP 1997-913984 19970327
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE
JP 2000507446 T2 20000620 JP 1997-534743 19970327

=> d 31-40 ti

1 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
ENTER ANSWER NUMBER OR RANGE (1):1

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
TI Gene therapy of cancers using suicide genes preferentially deleted from non-cancerous cells

=> d l4 31-40 ti

L4 ANSWER 31 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 13
TI Development of high-titer retroviral producer cell lines by using Cre-mediated recombination

L4 ANSWER 32 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 14
TI Cre/loxP-mediated **excision** of a neomycin resistance expression unit from an integrated retroviral **vector** increases long terminal repeat-driven transcription in human hematopoietic cells

L4 ANSWER 33 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 15
TI Convenient and reversible site-specific targeting of exogenous DNA into a bacterial chromosome by use of the FLP **recombinase**: the FLIRT system

L4 ANSWER 34 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Transient expression of SV 40 large T antigen by Cre/LoxP-mediated site-specific deletion in primary human tumor cells

L4 ANSWER 35 OF 44 BIOSIS COPYRIGHT 2001 BIOSIS
TI Efficiency of recombination by Cre transient expression in embryonic stem cells: Comparison of various promoters.

L4 ANSWER 36 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 16
TI Positive **selection** of FLP-mediated unequal sister chromatid exchange products in mammalian cells

L4 ANSWER 37 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 17
TI **Excision** of an integrated provirus by the action of FLP **recombinase**

L4 ANSWER 38 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI **Selection** of bacterial genes induced in host tissues

L4 ANSWER 39 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 18
TI Self-deleting retrovirus vectors for gene therapy

L4 ANSWER 40 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 19
TI **Excision** of Ets by an inducible site-specific **recombinase** causes differentiation of Myb-Ets-transformed

hematopoietic progenitors

=> d l4 32 ab

L4 ANSWER 32 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 14
AB Recombinant retroviruses are currently the most attractive vehicles for gene transfer into hematopoietic cells. Retroviral vectors often contain an easily **selectable marker** gene in addn. to the gene of interest. However, the presence and **selection** for expression of the **selectable** gene often result in a significant redn. of the expression of the gene of interest in the transduced cells. In order to circumvent this problem, we have developed a Cre/loxP recombination system for specific **excision** of the **selectable** expression unit from integrated retroviruses. A retroviral **vector**, contg. both a neomycin resistance expression unit flanked by loxP sites and granulocyte-macrophage colony-stimulating factor cDNA, was used to transduce the human hematopoietic K-562 cell line. Four transduced cell clones were then superinfected with a retrovirus contg. a Cre **recombinase** expression unit. Mol. analyses of 30 doubly transduced subclones showed a strict correlation between cre expression and loxP-flanked **selectable** cassette **excision**, thus implying that Cre **recombinase** activity is very efficient in a retroviral context. Moreover, the **excision** of the **selectable** cassette results in a significant increase of granulocyte-macrophage colony-stimulating factor transcription driven by the retroviral promoter.

=> d 34 ab

1 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
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L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
AB A method of cancer therapy by **selective** killing of transformed cells is described. The method makes use of the loss of certain transcription factors from tumor cells. The method uses a **vector** carrying a gene for a sequence-specific **recombinase** under control of **transcription factor** that is absent from tumor cells and a suicide gene flanked by target sequences for the **recombinase**. Introduction of the **vector** into normal cells results in expression of the **recombinase** gene and **excision** of the suicide gene. In tumor cells lacking the **transcription factor**, the suicide gene is not eliminated. Tumor cells exposed to a prodrug activated by the suicide gene product are killed.

=> d l4 34 ab

L4 ANSWER 34 OF 44 CAPLUS COPYRIGHT 2001 ACS
AB A "bottle-neck" for construction of autologous genetically engineered tumor vaccines and characterization of tumor antigens consists in the difficulty of establishing cell lines from human tumor material. We have constructed two retroviruses allowing transient expression of Simian virus

40 large T as an immortalizing agent. The first **vector** contains the genes for hygromycin and Herpes Simplex Virus thymidine kinase (TK), for pos. and neg. **selection** and the gene encoding large T. They are flanked by LoxP sites, the substrate of the bacteriophage **recombinase** Cre. The second retrovirus contains the genes for the Cre **recombinase** and puromycin as **selection marker**. By sequential infection of NIH3T3 cells with the two viruses, we have shown that the newly expressed large T gene can be deleted in a large proportion (.gtoreq.90%) of cells by site-specific recombination. Because the deletion included the TK gene, **selection** with gancyclovir against cells not having undergone recombination was possible. By infection with the large T retrovirus, cell lines could be easily established from mouse primary kidney cells, human fibroblasts, and cells derived from different surgical specimens of breast or colon cancer patients. One breast carcinoma cell line was further analyzed and shown to be of epithelial origin by characteristic markers (cytokeratins, mucin). This cell line grew continuously in culture for more than a year without any indication of a cell crisis. Infection with the cre-puro retrovirus and GCV **selection** resulted in complete **excision** of the large T gene as judged from antibody staining. Remarkably, these cells changed morphol. and stopped proliferation comparable to the cells obtained from biopsy demonstrating the requirement of large T for growth. Therefore, this approach may facilitate mol. and cellular characterization of human tumors and other cell types where cell culturing is the limiting step, and gene therapy approaches involving autologous tumor cells.

=> d 14 40 ab

L4 ANSWER 40 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 19

AB The Myb-Ets protein encoded by the E26 acute avian leukemia virus is a paradigm for the function of fused transcriptional activator oncoproteins.

Myb-Ets transforms hematopoietic progenitor cells (Myb-Ets progenitors, MEPs) that can be induced to differentiate into eosinophilic and myeloid cells by the activation of pathways involving Ras and/or protein kinase C.

The Ets portion of the fusion protein seems to be required to maintain the multipotency of MEPs: MEPs transformed with a temp.-sensitive E26 mutant with a lesion in Ets (ts1.1) and shifted to the non-permissive temp. predominantly form erythroid cells, but also form eosinophilic and myeloid cells. This interpretation is complicated, however, by the observation that ts1.1-transformed MEPs differ from MEPs transformed with wild-type E26 in that they express erythroid and eosinophil markers even at the permissive temp. To alleviate the problems assocd. with the use of temp.-sensitive mutants the authors have designed a **vector** that allows the inducible deletion of the Ets domain. To this end, the authors introduced FLP **recombinase** target sites into the E26 virus on the 5' and 3' sides of ets and included within the same retroviral **vector** sequences encoding an estrogen-dependent FLP **recombinase**. This construct, termed FRV-3, is capable of transforming cells to produce a phenotype indistinguishable from that of MEPs obtained with wild-type virus. Hormone treatment of MEPs transformed with FRV-3 induced erythroid differentiation in a subpopulation of the cells; this subpopulation was found to have completely **excised**

ets. However, in contrast to previous results obtained with ts1.1-transformed MEPs, no differentiation along the eosinophilic and myeloid lineages was seen in hormone-treated FRV-3-transformed MEPs. The results demonstrate the feasibility of using a site-specific **recombinase** to **excise** a fused oncoprotein domain encoded by a retrovirus. More specifically, they show that the Ets portion of the Myb-Ets protein **selectively** inhibits differentiation MEPs along the erythroid lineage, and suggest that Es is also required for their differentiation along the eosinophil and, possibly, myeloid lineages.

=> d l4 40 so

L4 ANSWER 40 OF 44 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 19
SO Curr. Biol. (1996), 6(7), 866-872
CODEN: CUBLE2; ISSN: 0960-9822

=> d l4 44 ab

L4 ANSWER 44 OF 44 CAPLUS COPYRIGHT 2001 ACS
AB A series of Saccharomyces cerevisiae/Escherichia coli .lambda./plasmid expression vectors have been constructed which allow easy **excision** of the plasmid sequences from .lambda.. Features of six are described, and two designated .lambda.PG15 and .lambda.AD5, are characterized in detail. Transcription of cloned sequences is controlled by the alternative promoters, ADH2, PGK, GAL10 and SV40 early, and by the CYC1 transcriptional terminator. Unique EcoRI and XhoI restriction sites in the intervening polylinker make these .lambda. vectors compatible for directional cloning of 'ZAP'-synthesized cDNAs. Inserted DNAs have been previously shown to have high levels of the genetic activity in both S. cerevisiae and E. coli, allowing these vectors to be used for genetic complementation in both species. Plasmid recovery from the .lambda. **vector** is mediated by the activity of the cre-encoded enzyme upon lox sequences flanking the plasmid and adjoining the .lambda. arms. The plasmids contain the yeast 2 .mu.m origin and E. coli pBR322 origin, the URA3 or TRP1 yeast **selectable** markers, and ampicillin-resistance **marker** in E. coli. The usefulness of the .lambda.PG15 and the .lambda.AD5 cloning vectors was demonstrated by constructing large Neurospora crassa cDNA libraries. The .lambda.PG15-N. crassa library was used to infect purE, purC and trpC mutants of E. coli, and complemented and/or suppressed prototrophic colonies were **selected**. The flexibility and power of this system for cloning of cDNAs is discussed.

=> d l4 44 so

L4 ANSWER 44 OF 44 CAPLUS COPYRIGHT 2001 ACS
SO Yeast (1993), 9(12), 1309-18
CODEN: YESTE3; ISSN: 0749-503X

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 NEWS  3  Feb 06  Engineering Information Encompass files have new names
 NEWS  4  Feb 16  TOXLINE no longer being updated
 NEWS  5  Apr 23  Search Derwent WPINDEX by chemical structure
 NEWS  6  Apr 23  PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
 NEWS  7  May 07  DGENE Reload

 NEWS EXPRESS  April 18 CURRENT WINDOWS VERSION IS V6.0,
               CURRENT MACINTOSH VERSION IS V5.0C (ENG) AND V5.0JB (JP),
               AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2001
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=> s transcription factor and recombinase

L1 60 TRANSCRIPTION FACTOR AND RECOMBINASE

=> s l1 and (excis? or delet? or remov?)

L2 14 L1 AND (EXCIS? OR DELET? OR REMOV?)

=> dup rem l2

PROCESSING COMPLETED FOR L2
L3 11 DUP REM L2 (3 DUPLICATES REMOVED)

=> d 1-11 ti

L3 ANSWER 1 OF 11 BIOSIS COPYRIGHT 2001 BIOSIS
TI Essential role of STAT3 in the control of the acute-phase response as revealed by inducible gene activation in the liver.

L3 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2001 ACS
TI Gene therapy of cancers using suicide genes preferentially **deleted** from non-cancerous cells

L3 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2001 ACS
TI Isolation of target nucleic acid molecules using hairpin-type nucleic acid probes

L3 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2001 ACS
TI Glucocorticoid receptor with modified ligand specificity, fusion proteins containing the ligand binding domain thereof, and their use in controlling gene expression in recombinant cells and transgenic animals

L3 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 1
TI Disruption of the c/ebp.alpha. gene in adult mouse liver

L3 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2001 ACS
TI Reporter gene systems for assaying the effectiveness of a transcription regulating factor and their uses

L3 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2001 ACS
TI Measuring the activity of transcription regulatory factors with reporter genes and regulatory cascades

L3 ANSWER 8 OF 11 BIOSIS COPYRIGHT 2001 BIOSIS
TI Expression of the Drosophila gooseberry locus defines a subset of neuroblast lineages in the central nervous system.

L3 ANSWER 9 OF 11 BIOSIS COPYRIGHT 2001 BIOSIS
TI SIL-TAL1 **deletion** in T-cell acute lymphoblastic leukemia.

L3 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 2
TI Disruption of the human SCL locus by "illegitimate" V-(D)-J **recombinase** activity

L3 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 3
TI The Bacillus subtilis gene for the developmental **transcription factor** .sigma.K is generated by **excision** of a dispensable DNA element containing a sporulation **recombinase** gene

=> d 2 ab

L3 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2001 ACS
AB A method of cancer therapy by selective killing of transformed cells is described. The method makes use of the loss of certain transcription factors from tumor cells. The method uses a vector carrying a gene for a sequence-specific **recombinase** under control of **transcription factor** that is absent from tumor cells and a suicide gene flanked by target sequences for the **recombinase**. Introduction of the vector into normal cells results in expression of the **recombinase** gene and **excision** of the suicide gene. In tumor cells lacking the **transcription factor**, the suicide gene is not eliminated. Tumor cells exposed to a prodrug activated by the suicide gene product are killed.

=> d 2 so

L3 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2001 ACS
SO Ger. Offen., 16 pp.
CODEN: GWXXBX

=> d 2 pi

L3 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2001 ACS

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19834430	A1	20000203	DE 1998-19834430	19980730
	DE 19834430	C2	20000531		
	WO 2000006758	A1	20000210	WO 1999-EP3607	19990525
	W: AU, CA, CN, JP, KR, RU, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9943682	A1	20000221	AU 1999-43682	19990525
	EP 1019518	A1	20000719	EP 1999-926413	19990525
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

=> d 4 ab

L3 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2001 ACS
AB A DNA fragment coding for a modified nuclear glucocorticoid receptor, particularly one mutated in the region coding for the ligand binding domain, so that receptor activity is more strongly inducible by a synthetic glucocorticoid ligand than by a natural glucocorticoid ligand, is disclosed. A fusion protein between the modified ligand-binding domain of the glucocorticoid receptor and a DNA-binding domain may be used to control gene expression in recombinant cells or in transgenic animals. A recombination system inducible in mammals by means of a fusion protein produced between a **recombinase** and the binding domain of the ligand derived from the modified glucocorticoid receptor of which the activity is more strongly inducible by synthetic glucocorticoids than by natural glucocorticoids, is also disclosed. The human glucocorticoid receptor contg. threonine at position 747 instead of isoleucine displays normal transactivating activity with dexamethasone, but not with natural ligands aldosterone and corticosterone. COS-7 cells contg. a reporter gene controlled by a GRE were exposed to dexamethasone or corticosterone. Reporter gene expression was only obsd. with the synthetic glucocorticoid. Control of genetic recombination (i.e., **excision** of loxP-flanked gene insert) in cells or transgenic mice by modified glucocorticoid receptor ligand binding domain fused to Cre **recombinase** was also demonstrated.

=> d 4 so

L3 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2001 ACS
SO PCT Int. Appl., 99 pp.
CODEN: PIXXD2

=> d 4 pi

L3 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2001 ACS

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9731108	A1	19970828	WO 1997-FR315	19970220
	W: AU, CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	FR 2745008	A1	19970822	FR 1996-2060	19960220
	CA 2247517	AA	19970828	CA 1997-2247517	19970220
	AU 9720989	A1	19970910	AU 1997-20989	19970220
	AU 707684	B2	19990715		
	EP 896620	A1	19990217	EP 1997-906232	19970220
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2000505298	T2	20000509	JP 1997-529854	19970220

=> d 6 ab

L3 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2001 ACS
AB A method of detg. the activity of a regulatory factor that uses a set of reporter genes under control of different arrays of regulatory elements is

described. The method uses two regulatory factors in a cascade in which an active first factor affects either the activity of the second regulatory factor, or the expression of the gene encoding it. It is the second factor that regulates expression of the reporter gene. Following addn. of an inhibitor, the activation of the reporter system is detected by the interaction between the first and second regulatory factors. The method can be used to identify factors that can inhibit the action of oncogene products that are transcription factors. The development of Saccharomyces cerevisiae-based test systems is described. The use of such a system to screen a pool of .apprx.105 peptides for inhibitors of the **transcription factor** CTF-7 is demonstrated.

=> d 7 ab

L3 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2001 ACS
AB A method for measuring the activity of a **transcription factor** that uses a regulatory cascade with factor of interest as the first component of the cascade is described. The factor is used to regulate expression of a gene that is used to control expression of a reporter gene. The use of the cascade allows the measurement of transcription activating and inhibiting activities and of multi-component factors. The assay is adaptable to screening large nos. of compds. affecting transcription for use in the therapeutic regulation of gene expression, e.g. inhibition of oncogene function. The second regulatory protein may be a fusion protein of two factors intended to give maximal reporting of the activity of the first **transcription factor**.a. Models for testing a no. of regulatory interactions are presented. Saccharomyces cerevisiae is the preferred host, allowing for large scale screening of compds. Model systems showing tetracycline regulation of expression through the tetR repressor and for screening of peptide inhibitors of CTF-7 function are demonstrated.

=> s l1 and vector

L4 2 L1 AND VECTOR

=> d 1-2 ti

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2001 ACS
TI Gene therapy of cancers using suicide genes preferentially deleted from non-cancerous cells

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2001 ACS
TI Eukaryote persistent gene expression or gene regulation using vectors comprising origin of replication, gene of interest, and gene for site-specific **recombinase** or other replication protein

=> d 2 ab

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2001 ACS
AB The present invention provides methods for site-specific recombination in a cell, as well as vectors which can be employed in such methods. The methods and vectors of the present invention can be used to obtain persistent gene expression in a cell and to modulate gene expression. One

preferred method according to the invention comprises contacting a cell with a **vector** comprising an origin of replication functional in mammalian cells located between first and second recombining sites located in parallel. Another preferred method comprises, in part, contacting a cell with a **vector** comprising first and second recombining sites in antiparallel orientations such that the **vector** is internalized by the cell. In both methods, the cell is further provided with a site-specific **recombinase** that effects recombination between the first and second recombining sites of the **vector**.

=> d 2 so

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2001 ACS
SO PCT Int. Appl., 120 pp.
CODEN: PIXXD2

=> d 2 pi

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2001 ACS

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9709439	A1	19970313	WO 1996-US14123	19960827
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
	US 5801030	A	19980901	US 1995-522684	19950901
	AU 9669122	A1	19970327	AU 1996-69122	19960827
	AU 717597	B2	20000330		
	EP 850312	A1	19980701	EP 1996-929879	19960827
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
	CN 1200149	A	19981125	CN 1996-197732	19960827
	US 6063627	A	20000516	US 1998-30563	19980225
	NO 9800838	A	19980421	NO 1998-838	19980227

=> s l1 and marker

L5 1 L1 AND MARKER

=> d ti

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
TI Gene therapy of cancers using suicide genes preferentially deleted from non-cancerous cells

=> s induc? and (flp or cre or recombinase)

L6 2818 INDUC? AND (FLP OR CRE OR RECOMBINASE)

=> s l6 and transcription factor

L7 704 L6 AND TRANSCRIPTION FACTOR

=> s l7 and (glucocorticoid or gvg)

L8 31 L7 AND (GLUCOCORTICOID OR GVG)

=> dup rem l8

PROCESSING COMPLETED FOR L8
L9 22 DUP REM L8 (9 DUPLICATES REMOVED)

=> d 1-10 ti

L9 ANSWER 1 OF 22 CAPLUS COPYRIGHT 2001 ACS
TI Diagnosis, prognosis and treatment of glaucoma and related disorders and steroid sensitivity using polymorphisms in the TIGR gene and its promoter region

L9 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 1
TI **Glucocorticoid** negative feedback selectively targets vasopressin transcription in parvocellular neurosecretory neurons

L9 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2001 ACS
TI The differential molecular mechanisms underlying proenkephalin mRNA expression **induced** by forskolin and phorbol-12-myristic-13-acetate in primary cultured astrocytes

L9 ANSWER 4 OF 22 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 2
TI The **transcription factor** CCAAT/enhancer-binding protein .beta. regulates gluconeogenesis and phosphoenolpyruvate carboxykinase (GTP) gene transcription during diabetes

L9 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 3
TI The phosphoenolpyruvate carboxykinase gene **glucocorticoid** response unit: identification of the functional domains of accessory factors HNF3.beta. (hepatic nuclear factor-3.beta.) and HNF4 and the necessity of proper alignment of their cognate binding sites

L9 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 4
TI Mutagenesis of the **glucocorticoid** receptor in mice

L9 ANSWER 7 OF 22 BIOSIS COPYRIGHT 2001 BIOSIS
TI Involvement of Sp1 in basal and retinoic acid **induced** transcription of the human tissue-type plasminogen activator gene.

L9 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2001 ACS
TI **Glucocorticoid** receptor, C/EBP, HNF3, and protein kinase A coordinately activate the **glucocorticoid** response unit of the carbamoylphosphate synthetase I gene

L9 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2001 ACS
TI **Glucocorticoid** receptor with modified ligand specificity, fusion proteins containing the ligand binding domain thereof, and their use in controlling gene expression in recombinant cells and transgenic animals

L9 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 5
TI SNF2.beta.-BRG1 is essential for the viability of F9 murine embryonal carcinoma cells

```
=> s ((moller, s?) or (moller s?))/au

L10        405 ((MOLLER, S?) OR (MOLLER S?))/AU

=> s l10 and (gvg or cre)

L11          3 L10 AND (GVG OR CRE)

=> dup rem l11

PROCESSING COMPLETED FOR L11
L12          1 DUP REM L11 (2 DUPLICATES REMOVED)

=> d ti


L12  ANSWER 1 OF 1  AGRICOLA                              DUPLICATE 1
TI   Chemical-regulated, site-specific DNA excision in transgenic plants.


=> d ti


L12  ANSWER 1 OF 1  AGRICOLA                              DUPLICATE 1
TI   Chemical-regulated, site-specific DNA excision in transgenic plants.


=> d ab


L12  ANSWER 1 OF 1  AGRICOLA                              DUPLICATE 1


=> d so


L12  ANSWER 1 OF 1  AGRICOLA                              DUPLICATE 1
SO   Nature biotechnology, Feb 2001. Vol. 19, No. 2. p. 157-161
     Publisher: New York, NY : Nature America, Inc.
     CODEN: NABIF9; ISSN: 1087-0156


=> s recombinase and chemical? and (excis? or delet? or remov?)

L13        255 RECOMBINASE AND CHEMICAL? AND (EXCIS? OR DELET? OR REMOV?)

=> s l13 and transcription factor

L14          2 L13 AND TRANSCRIPTION FACTOR

=> d 1-2 ti


L14  ANSWER 1 OF 2  BIOSIS  COPYRIGHT 2001 BIOSIS
TI   Essential role of STAT3 in the control of the acute-phase response as
     revealed by inducible gene activation in the liver.

L14  ANSWER 2 OF 2  BIOSIS  COPYRIGHT 2001 BIOSIS
TI   Disruption of the c/ebp-alpha gene in adult mouse liver.
```

=> d ab

L14 ANSWER 1 OF 2 BIOSIS COPYRIGHT 2001 BIOSIS
AB We generated mice carrying a STAT3 allele amenable to Cre-mediated **deletion** and intercrossed them with Mx-Cre transgenic mice, in which the expression of Cre **recombinase** can be induced by type I interferon. Interferon-induced **deletion** of STAT3 occurred very efficiently (more than 90%) in the liver and slightly less efficiently (about 70%) in the bone marrow. Analysis of the induction of liver acute-phase genes in response to bacterial lipopolysaccharide unequivocally identifies STAT3 as a fundamental mediator of their induction. The different degrees of defectiveness displayed by the various genes allowed us to differentiate them into three separate groups according to their degree of dependence on STAT3. Induction was totally defective for group I genes, defective at 24 h but almost normal at earlier time points for group II genes, and only slightly defective for group III genes. This division was in good agreement with the known structures of the respective promoters. We also found that the overall induction of the transcription factors C/EBPbeta and -delta was only minimally defective in the absence of STAT3. Finally, even though corticosterone levels and action were found to be normal in the conditional-mutant mice, production of both proinflammatory and antiinflammatory cytokines was increased and prolonged, probably as a result of STAT3 **deletion** in macrophages.

=> d 2 ab

L14 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2001 BIOSIS
AB The liver-enriched **transcription factor** C/EBP-alpha has been implicated in the regulation of numerous liver-specific genes. It was previously reported that mice carrying a homozygous null mutation at the c/ebp-alpha locus died as neonates due to the absence of hepatic glycogen and the resulting hypoglycemia. However, the lethal phenotype precluded further analysis of the role of C/EBP-alpha in hepatic gene regulation in adult mice. To circumvent this problem, we constructed a conditional knockout allele of c/ebp-alpha by using the Cre/loxP recombination system. Homozygous c/ebp-loxP mice, (c/ebp-alpha-f-fl/fl; fl, flanked by loxP sites) were found to be indistinguishable from their wild-type counterparts. However, when Cre **recombinase** was delivered to hepatocytes of adult c/ebp-alpha-fl/fl mice by infusion of a recombinant adenovirus carrying the cre gene, more than 80% of the c/ebp-alpha-fl/fl genes were **deleted** specifically in liver and C/EBP-alpha expression was reduced by 90%. This condition resulted in a reduced level of bilirubin UDP-glucuronosyltransferase expression in the liver. After several days, the knockout mice developed severe jaundice due to an increase in unconjugated serum bilirubin. The expression of genes encoding phosphoenolpyruvate carboxykinase, glycogen synthase, and factor IX was also strongly reduced in adult conditional-knockout animals, while the expression of transferrin, apolipoprotein B, and insulin-like growth factor I genes was not affected. These results establish C/EBP-alpha as an essential transcriptional regulator of genes encoding enzymes involved in bilirubin detoxification and gluconeogenesis in adult mouse liver.

=> s l13 and marker

   2 FILES SEARCHED...
L15   27 L13 AND MARKER

=> dup rem l15

PROCESSING COMPLETED FOR L15
L16   25 DUP REM L15 (2 DUPLICATES REMOVED)

=> d 1-10 ti

L16 ANSWER 1 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI   Plasmids with the Cre-**recombinase** and the dominant nat
     marker, suitable for use in prototrophic strains of Saccharomyces
     cerevisiae and Kluyveromyces lactis.

L16 ANSWER 2 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI   Effects of replication termination mutants on chromosome partitioning in
     Bacillus subtilis.

L16 ANSWER 3 OF 25 CAPLUS COPYRIGHT 2001 ACS   DUPLICATE 1
TI   **Chemical**-regulated, site-specific DNA **excision** in
     transgenic plants

L16 ANSWER 4 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI   Construction of a Vibrio cholerae vaccine candidate using transposon
     delivery and FLP **recombinase**-mediated **excision**.

L16 ANSWER 5 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI   Inactivation of Pasteurella (Mannheimia) haemolytica leukotoxin causes
     partial attenuation of virulence in a calf challenge model.

L16 ANSWER 6 OF 25 AGRICOLA   DUPLICATE 2
TI   A transformation vector for the production of **marker**-free
     transgenic plants containing a single copy transgene at high frequency.

L16 ANSWER 7 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI   Intrachromosomal recombination between attP regions as a tool to
     remove selectable **marker** genes from tobacco transgenes.

L16 ANSWER 8 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI   Exploring redundancy in the yeast genome: An improved strategy for use of
     the cre-loxP system.

L16 ANSWER 9 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI   Mosaic analysis of GL2 gene expression and cell layer autonomy during the
     specification of Arabidopsis leaf trichomes.

L16 ANSWER 10 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI   Integration-proficient plasmids for Pseudomonas aeruginosa: Site-specific
     integration and use for engineering of reporter and expression strains.

=> d ab

L16 ANSWER 1 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS

AB Two plasmids are described which can be used to **remove** the 'loxP-markerMX-loxP' cassettes in strains lacking the ura3 mutation. Both contain the Cre-**recombinase** under control of the GAL1 promoter and the natMX cassette with the dominant **marker** nat, which gives yeasts resistance to the antibiotic ClonNat. pNatCre contains ARSH and CEN6 for maintenance in Saccharomyces cerevisiae. pKINatCre has a Kluyveromyces lactis replication origin and centromere in addition.

=> d so

L16 ANSWER 1 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
SO Yeast, (30 March, 2001) Vol. 18, No. 5, pp. 469-472. print.
ISSN: 0749-503X.

=> d 4 ab

L16 ANSWER 4 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
AB Recent efforts to develop a vaccine against the diarrheal disease cholera have focused on the use of live attenuated strains of the causative organism, Vibrio cholerae. The Ogawa lipopolysaccharide phenotype is expressed by many epidemic strains, and motility defects reduce the risk of reactive diarrhea in vaccine recipients. We therefore converted a motile Inaba+ vaccine candidate, Peru-2, to a nonmotile Ogawa+ phenotype using a mariner-based transposon carrying rfbT, the gene required for expression of the Ogawa phenotype. Analysis of 22 nonmotile Peru-2 mutants showed that two were Ogawa+, and both of these strains had insertions in the flgE gene. It was possible to convert these strains to antibiotic sensitivity by introducing a **recombinase** that acts on sites flanking the antibiotic **marker** on the transposon. The resulting strains are competent for colonization in infant mice and may therefore be suitable as vaccine candidates for use either independently or in a combination with strains of different biotypes and serotypes.

=> d 4 so

L16 ANSWER 4 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
SO Infection and Immunity, (November, 2000) Vol. 68, No. 11, pp. 6391-6397. print.
ISSN: 0019-9567.

=> d 8 ab

L16 ANSWER 8 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
AB Gene families having more than three members are a common phenomenon in the Saccharomyces cerevisiae genome. As yeast research enters the post-genome era, the development of existing **deletion** strategies is crucial for tackling this apparent redundancy, hence a method for performing rapid multiple gene disruptions in this organism has been developed. We constructed three replacement cassettes in which different selectable markers were placed between two loxP loci. Multiple **deletions** (of members of a gene family) were generated, in one

strain, using sequential integration of different replacement markers (kanMX, LYS2, KlURA3 and SpHIS5). Their **excision** from the genome was performed simultaneously, as the final step, using a new cre **recombinase** vector, which carries the cycloheximide-resistance gene from Candida maltosa as a selectable **marker**. Our multiple gene **deletion** system significantly accelerates and facilitates the functional analysis process and is particularly useful for studying gene families in either laboratory or industrial yeast strains.

=> d 8 so

L16 ANSWER 8 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
SO Gene (Amsterdam), (11 July, 2000) Vol. 252, No. 1-2, pp. 127-135. print.
ISSN: 0378-1119.

=> d 11-20 ti

L16 ANSWER 11 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI A novel strategy for constructing N-terminal chromosomal fusions to green fluorescent protein in the yeast Saccharomyces cerevisiae.

L16 ANSWER 12 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI Chromosomal integration of heterologous DNA in Escherichia coli with precise **removal** of markers and replicons used during construction.

L16 ANSWER 13 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI Targeting genes for self-**excision** in the germ line.

L16 ANSWER 14 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI The frequency of illegitimate TCRbeta/gamma gene recombination in human lymphocytes: Influence of age, environmental exposure and cytostatic treatment, and correlation with frequencies of t(14;18) and hprt mutation.

L16 ANSWER 15 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI Genome engineering of Toxoplasma gondii using the site-specific **recombinase** Cre.

L16 ANSWER 16 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI pBECKS2000: A novel plasmid series for the facile creation of complex binary vectors, which incorporates "clean-gene" facilities.

L16 ANSWER 17 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI Selectable **marker**-free transgenic plants without sexual crossing: Transient expression of cre **recombinase** and use of a conditional lethal dominant gene.

L16 ANSWER 18 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI Retargeting of retroviral integration sites for the predictable expression of transgenes and the analysis of cis-acting sequences.

L16 ANSWER 19 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI Virus attenuation after **deletion** of the cytomegalovirus Fc receptor gene is not due to antibody control.

L16 ANSWER 20 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
TI Dissecting the role of N-myc in development using a single targeting vector to generate a series of alleles.

=> d 12 ab

L16 ANSWER 12 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
AB A set of vectors which facilitates the sequential integration of new functions into the Escherichia coli chromosome by homologous recombination has been developed. These vectors are based on plasmids described by Posfai et al. (J. Bacteriol. 179:4426-4428, 1997) which contain conditional replicons (pSC101 or R6K), a choice of three selectable markers (ampicillin, chloramphenicol, or kanamycin), and a single FRT site. The modified vectors contain two FRT sites which bracket a modified multiple cloning region for DNA insertion. After integration, a helper plasmid expressing the flippase (FLP) **recombinase** allows precise in vivo **excision** of the replicon and the **marker** used for selection. Sites are also available for temporary insertion of additional functions which can be subsequently **deleted** with the replicon. Only the DNA inserted into the multiple cloning sites (passenger genes and homologous fragment for targeting) and a single FRT site (68 bp) remain in the chromosome after **excision**. The utility of these vectors was demonstrated by integrating Zymomonas mobilis genes encoding the ethanol pathway behind the native chromosomal adhE gene in strains of E. coli K-12 and E. coli B. With these vectors, a single antibiotic selection system can be used repeatedly for the successive improvement of E. coli strains with precise **deletion** of extraneous genes used during construction.

=> d 12 so

L16 ANSWER 12 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
SO Journal of Bacteriology, (Nov., 1999) Vol. 181, No. 22, pp. 7143-7148. ISSN: 0021-9193.

=> d 13 ab

L16 ANSWER 13 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
AB A procedure is described that directs the self-induced **deletion** of DNA sequences as they pass through the male germ line of mice. The testes-specific promoter from the angiotensin-converting enzyme gene was used to drive expression of the Cre-**recombinase** gene. Cre was linked to the selectable **marker** Neor, and the two genes flanked with loxP elements. This cassette was targeted to the Hoxa3 gene in mouse ES cells that were in turn used to generate chimeric mice. In these chimeras, somatic cells derived from the ES cells retained the cassette, but self-**excision** occurred in all ES-cell-derived sperm.

=> d 13 so

L16 ANSWER 13 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
SO Genes & Development, (June 15, 1999) Vol. 13, No. 12, pp. 1524-1528.
ISSN: 0890-9369.

=> d 15 ab

L16 ANSWER 15 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
AB Site-specific DNA recombinases from bacteriophage and yeasts have been developed as novel tools for genome engineering both in prokaryotes and eukaryotes. The 38 kDa Cre protein efficiently produces both inter- and intramolecular recombination between specific 34 bp sites called loxP. We report here the in vivo use of Cre **recombinase** to manipulate the genome of the protozoan parasite Toxoplasma gondii. Cre catalyzes the precise **removal** of transgenes from T. gondii genome when flanked by two directly repeated loxP sites. The efficiency of **excision** has been determined using LacZ as reporter and indicates that it can easily be applied to the **removal** of undesired sequences such as selectable **marker** genes and to the determination of gene essentiality. We have also shown that the reversibility of the recombination reaction catalyzed by Cre offers the possibility to target site-specific integration of a loxP-containing vector in a chromosomally placed loxP target in the parasite. In mammalian systems, the Cre **recombinase** can be regulated by hormone and is used for inducible gene targeting. In T. gondii, fusions between Cre **recombinase** and the hormone-binding domain of steroids are constitutively active, hampering the utilization of this mode of post-translational regulation as
inducible gene expression system.

=> d 15 so

L16 ANSWER 15 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
SO Gene (Amsterdam), (July 8, 1999) Vol. 234, No. 2, pp. 239-247.
ISSN: 0378-1119.

=> d 17 avb

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L16 ANSWER 17 OF 25 BIOSIS COPYRIGHT 2001 BIOSIS
AB Transgenic tobacco plants were produced that contained single-copy pART54 T-DNA, with a 35S-uidA gene linked to loxP-flanked kanamycin resistance (nptII) and cytosine deaminase (codA) genes. Retransformation of these plants with pCre1 (containing 35S transcribed cre **recombinase** and hygromycin (hpt) resistance genes) resulted in **excision** of the loxP-flanked genes from the genome. Phenotypes of progeny from selfed-retransformed plants confirmed nptII and codA **excision** and integration of the cre-linked hpt gene. To avoid integration of the hpt gene, and thereby generate plants totally free of **marker** genes, we attempted to transiently express the cre **recombinase**.

Agrobacterium tumefaciens (pCre1) was cocultivated with leaf discs of two
pART54-transformed lines and shoots were regenerated in the absence of
hygromycin selection. Nineteen of 773 (0.25%) shoots showed tolerance to
5-fluorocytosine (5-fc) which is converted to the toxic 5-fluorouracil by
cytosine deaminase. 5-fc tolerance insix shoots was found to be due to
excision of the loxP-flanked region of the pART54 T-DNA. In four
of these shoots **excision** could be attributed to cre expression
from integrated pCre1 T-DNA, whereas in two shoots **excision**
appeared to be a consequence of transient cre expression from pCre1 T-DNA
molecules which had been transferred to the plant cells but not
A integrated
into the genome. The absence of selectable **marker** genes was
confirmed by the phenotype of the T1 progeny. Therefore, through
transient
cre expression, **marker**-free transgenic plants were produced
without sexual crossing. This approach could be applicable to the
elimination of **marker** genes from transgenic crops which must be
vegetatively propagated to maintain their elite genotype.

=> d 17 so

L16 ANSWER 17 OF 25 BIOSIS

SO Plant Molecular Biology, (May, 1999) Vol. 40, No. 2, pp. 223-235.
ISSN: 0167-4412.